

Aircraft Manufacturing: 2002

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2002 Economic Census

Manufacturing

Industry Series



U S C E N S U S B U R E A U

Helping You Make Informed Decisions

U.S. Department of Commerce
Economics and Statistics Administration
U.S. CENSUS BUREAU



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-- Not applicable for this report.

Table 1. Historical Statistics for the Industry: 2002 and Earlier Years

[Data based on the 2002 Economic Census and the 2002 Annual Survey of Manufactures (ASM). For information on confidentiality protection, sampling error, nonsampling error, and explanation of terms, see note at end of table. For meaning of abbreviations and symbols, see introductory text]

Industry and year ¹	Com- panies ²	All estab- lish- ments ³	All employees		Production workers			Value added (\$1,000)	Total cost of materials (\$1,000)	Total value of shipments (\$1,000)	Total capital expendi- tures (\$1,000)
			Number ⁴	Payroll (\$1,000)	Number ⁴	Hours (1,000)	Wages (\$1,000)				
336411, Aircraft manufacturing 2002..	184	219	174 669	9 785 988	79 190	161 405	3 812 407	28 740 614	34 768 209	64 355 168	'912 669
2001..	N	N	178 937	9 634 797	82 305	172 848	4 081 038	31 418 591	37 927 075	69 511 983	610 740
2000..	N	N	183 060	10 409 486	86 842	185 171	4 504 816	26 227 012	33 969 178	65 783 463	616 902
1999..	N	N	194 158	10 709 911	96 086	196 459	4 677 165	33 462 931	37 308 333	73 397 508	767 755
1998..	N	N	213 148	11 289 840	106 227	200 368	4 812 614	36 025 687	40 572 366	69 540 577	904 433
1997..	172	202	202 491	10 839 372	97 742	185 616	4 426 847	20 767 608	36 653 368	57 893 242	774 858

¹Statistics presented for years ending in 2 and 7 are census data. Interim census years are derived in a representative sample of manufacturing establishments canvassed in the Annual Survey of Manufactures (ASM).

²For the census, a company is defined as a business organization consisting of one establishment or more under common ownership or control.

³Includes establishments with payroll at any time during the year.

⁴Number of employees figures represent average number of production workers for pay period that includes the 12th of March, May, August, and November plus other employees for payroll period that includes the 12th of March.

Note: The data in this table are based on the 2002 Economic Census and the 2002 Annual Survey of Manufactures (ASM). To maintain confidentiality, the Census Bureau suppresses data to protect the identity of any business or individual. The census results in this table contain sampling errors and nonsampling errors. Data users who create their own estimates using data from American FactFinder tables should cite the Census Bureau as the source of the original data only. For explanation of terms, see Appendix A. For full technical documentation, see Appendix C.

Table 2. Industry Statistics for Selected States: 2002

[States that are a disclosure or with less than 100 employees are not shown. Data based on the 2002 Economic Census. For information on confidentiality protection, nonsampling error, explanation of terms, and geographical definitions, see note at end of table. For information on geographic areas followed by *, see Appendix D. For meaning of abbreviations and symbols, see introductory text]

Industry and geographic area	E ¹	All establishments ²		All employees		Production workers			Value added (\$1,000)	Total cost of materials (\$1,000)	Total value of shipments (\$1,000)	Total capital expenditures (\$1,000)
		Total	With 20 employees or more	Number ³	Payroll (\$1,000)	Number ³	Hours (1,000)	Wages (\$1,000)				
336411, Aircraft manufacturing												
United States	—	219	104	174 669	9 785 988	79 190	161 405	3 812 407	28 740 614	34 768 209	64 355 168	'912 669
California	1	29	14	25 824	1 079 256	11 040	14 207	469 704	1 858 278	2 348 564	4 579 651	'72 864
Florida	1	21	7	3 302	168 492	1 135	2 205	51 672	554 592	361 984	902 980	'19 685
Kansas	—	9	6	22 593	1 112 629	13 844	28 601	535 861	3 713 207	2 800 835	6 834 436	'183 754
Texas	—	25	11	21 183	1 499 163	7 521	16 393	477 276	3 569 724	2 981 904	5 668 207	'166 585

¹Some payroll and sales data for small single-establishment companies with up to 20 employees (cutoff varied by industry) were obtained from administrative records of other government agencies rather than from census report forms. These data were then used in conjunction with industry averages to estimate statistics for these small establishments. This technique was also used for a small number of other establishments whose reports were not received at the time data were tabulated. The following symbols are shown where estimated data account for 10 percent or more of the figures shown: 1—10 to 19 percent; 2—20 to 29 percent; 3—30 to 39 percent; 4—40 to 49 percent; 5—50 to 59 percent; 6—60 to 69 percent; 7—70 to 79 percent; 8—80 to 89 percent; 9—90 percent or more.

²Includes establishments with payroll at any time during the year.

³Number of employees figures represent average number of production workers for pay period that includes the 12th of March, May, August, and November plus other employees for payroll period that includes the 12th of March.

Note: The data in this table are based on the 2002 Economic Census. To maintain confidentiality, the Census Bureau suppresses data to protect the identity of any business or individual. The census results in this table contain nonsampling errors. Data users who create their own estimates using data from American FactFinder tables should cite the Census Bureau as the source of the original data only. For explanation of terms, see Appendix A. For full technical documentation, see Appendix C. For geographical definitions, see Appendix D.

Table 3. Detailed Statistics by Industry: 2002

[Data based on the 2002 Economic Census and the 2002 Annual Survey of Manufactures (ASM). For information on confidentiality protection, sampling error, nonsampling error, and explanation of terms, see note 2 at end of table. For meaning of abbreviations and symbols, see introductory text]

Item	Value
336411, Aircraft manufacturing	
Companies ¹	number.. 184
All establishments ²	number.. 219
Establishments with 1 to 19 employees	number.. 115
Establishments with 20 to 99 employees	number.. 41
Establishments with 100 employees or more	number.. 63
All employees ³	number.. 174 669
Total compensation	\$1,000.. 13 064 440
Annual payroll	\$1,000.. 9 785 988
Total fringe benefits	\$1,000.. 3 278 452
Production workers, average for year	number.. 79 190
Production workers on March 12	number.. 82 022
Production workers on May 12	number.. 81 249
Production workers on August 12	number.. 78 114
Production workers on November 12	number.. 75 351
Production worker hours	\$1,000.. 161 405
Production worker wages	\$1,000.. 3 812 407
Total cost of materials	\$1,000.. 34 768 209
Materials, parts, containers, packaging, etc., used	\$1,000.. 32 659 425
Resales	\$1,000.. 1 259 344
Purchased fuels	\$1,000.. 49 390
Purchased electricity	\$1,000.. 191 918
Contract work	\$1,000.. 608 132
Quantity of electricity purchased for heat and power	1,000 kWh.. 3 196 164
Quantity of electricity generated less sold for heat and power	1,000 kWh.. S
Total value of shipments	\$1,000.. 64 355 168
Primary products value of shipments	\$1,000.. 58 151 624
Secondary products value of shipments	\$1,000.. 3 739 616
Total miscellaneous receipts	\$1,000.. 2 463 928
Value of resales	\$1,000.. 1 332 219
Contract receipts	\$1,000.. 10 491
Other miscellaneous receipts	\$1,000.. 1 121 218
Primary products specialization ratio	percent.. 94
Value of primary products shipments made in all industries	\$1,000.. 59 778 223
Value of primary products shipments made in this industry	\$1,000.. 58 151 624
Value of primary products shipments made in other industries	\$1,000.. 1 626 599
Coverage ratio	percent.. 97
Value added	\$1,000.. 28 740 614
Total inventories, beginning of year	\$1,000.. 26 555 737
Finished goods inventories	\$1,000.. 3 159 003
Work-in-process inventories	\$1,000.. 19 798 055
Materials and supplies inventories	\$1,000.. 3 598 679
Total inventories, end of year	\$1,000.. 24 622 632
Finished goods inventories	\$1,000.. 2 791 096
Work-in-process inventories	\$1,000.. 19 319 617
Materials and supplies inventories	\$1,000.. 2 511 919
Gross value of depreciable assets (acquisition costs) at beginning of year	\$1,000.. '13 992 572
Total capital expenditures (new and used)	\$1,000.. '912 669
Buildings and other structures (new and used)	\$1,000.. '244 803
Machinery and equipment (new and used)	\$1,000.. '667 866
Automobiles, trucks, etc., for highway use	\$1,000.. '6 599
Computers and peripheral data processing equipment	\$1,000.. '58 700
All other expenditures for machinery and equipment	\$1,000.. '602 567
Total retirements	\$1,000.. '844 381
Gross value of depreciable assets at end of year	\$1,000.. '14 060 860
Depreciation charges during year	\$1,000.. '675 322
Total rental payments	\$1,000.. 397 889
Buildings and other structures	\$1,000.. 90 379
Machinery and equipment	\$1,000.. 307 510
Total other expenses ⁴	\$1,000.. 1 885 708
Response coverage ratio ⁵	percent.. 78
Repair and maintenance services of buildings and/or machinery ⁴	\$1,000.. 206 660
Communications services ⁴	\$1,000.. 80 564
Legal services ⁴	\$1,000.. 25 092
Accounting, auditing, and bookkeeping services ⁴	\$1,000.. 15 636
Advertising and promotional services ⁴	\$1,000.. 79 980
Expensed computer hardware and supplies and purchased computer services ⁴	\$1,000.. 426 206
Refuse removal (including hazardous waste) services ⁴	\$1,000.. 9 604
Management consulting and administrative services ⁴	\$1,000.. 156 493
Taxes and license fees ⁴	\$1,000.. 50 212
All other expenses ⁴	\$1,000.. 835 263

¹For the census, a company is defined as a business organization consisting of one establishment or more under common ownership or control.

²Includes establishments with payroll at any time during the year.

³Number of employees figures represent average number of production workers for pay period that includes the 12th of March, May, August, and November plus other employees for payroll period that includes the 12th of March.

⁴Based on Annual Survey of Manufactures (ASM) sample data.

⁵A response coverage ratio is derived for this item by calculating the ratio of the weighted employment (establishment data multiplied by sample weight) for those Annual Survey of Manufactures (ASM) establishments that reported to the weighted total employment for all ASM establishments classified in this industry.

Note 1: The amounts shown for other expenses reflect only those services that establishments purchase from other companies.

Note 2: The data in this table are based on the 2002 Economic Census and the 2002 Annual Survey of Manufactures (ASM). To maintain confidentiality, the Census Bureau suppresses data to protect the identity of any business or individual. The census results in this table contain sampling errors and nonsampling errors. Data users who create their own estimates using data from American FactFinder tables should cite the Census Bureau as the source of the original data only. For explanation of terms, see Appendix A. For full technical documentation, see Appendix C.

Table 4. Industry Statistics by Employment Size: 2002

[Data based on the 2002 Economic Census. For information on confidentiality protection, nonsampling error, and explanation of terms, see note at end of table. For meaning of abbreviations and symbols, see introductory text]

Employment size class	E ¹	All establishments ²	All employees		Production workers			Value added (\$1,000)	Total cost of materials (\$1,000)	Total value of shipments (\$1,000)	Total capital expenditures (\$1,000)
			Number ³	Payroll (\$1,000)	Number ³	Hours (1,000)	Wages (\$1,000)				
336411, Aircraft manufacturing											
All establishments	—	219	174 669	9 785 988	79 190	161 405	3 812 407	28 740 614	34 768 209	64 355 168	'912 669
Establishments with—											
1 to 4 employees	8	73	149	5 911	81	144	2 745	15 114	16 010	31 832	'744
5 to 9 employees	5	19	124	4 975	71	102	2 045	11 818	10 930	22 322	'512
10 to 19 employees	7	23	313	12 711	180	296	6 267	29 068	31 658	61 099	'1 957
20 to 49 employees	5	22	691	35 529	364	758	15 796	66 078	98 493	181 757	'6 827
50 to 99 employees	4	19	1 323	67 203	817	1 736	32 473	173 449	160 399	356 856	'13 966
100 to 249 employees	2	13	2 075	97 297	1 197	2 462	45 325	249 223	185 145	417 781	'15 147
250 to 499 employees	3	14	4 681	225 621	2 792	5 500	117 606	563 897	448 687	1 020 211	'20 507
500 to 999 employees	3	12	7 828	438 057	4 384	9 461	212 482	1 223 728	1 008 260	2 203 006	'50 464
1,000 to 2,499 employees	—	9	12 655	658 117	7 767	15 981	398 378	1 605 815	2 270 226	3 852 930	'58 660
2,500 employees or more	—	15	144 830	8 240 567	61 537	124 965	2 979 290	24 802 424	30 538 401	56 207 374	743 885
Administrative records ⁴	—	—	—	—	—	—	—	—	—	—	—

¹Some payroll and sales data for small single-establishment companies with up to 20 employees (cutoff varied by industry) were obtained from administrative records of other government agencies rather than from census report forms. These data were then used in conjunction with industry averages to estimate statistics for these small establishments. This technique was also used for a small number of other establishments whose reports were not received at the time data were tabulated. The following symbols are shown where estimated data account for 10 percent or more of the figures shown: 1–10 to 19 percent; 2–20 to 29 percent; 3–30 to 39 percent; 4–40 to 49 percent; 5–50 to 59 percent; 6–60 to 69 percent; 7–70 to 79 percent; 8–80 to 89 percent; 9–90 percent or more.

²Includes establishments with payroll at any time during the year.

³Number of employees figures represent average number of production workers for pay period that includes the 12th of March, May, August, and November plus other employees for payroll period that includes the 12th of March.

⁴Some payroll and sales data for small single-establishment companies with up to 20 employees (cutoff varied by industry) were obtained from administrative records of other government agencies rather than from census report forms. These data were then used in conjunction with industry averages to estimate statistics for these small establishments. Data are also included in respective size classes shown.

Note: The data in this table are based on the 2002 Economic Census. To maintain confidentiality, the Census Bureau suppresses data to protect the identity of any business or individual. The census results in this table contain nonsampling errors. Data users who create their own estimates using data from American FactFinder tables should cite the Census Bureau as the source of the original data only. For explanation of terms, see Appendix A. For full technical documentation, see Appendix C.

Table 5. Industry Statistics by Primary Product Class Specialization: 2002

[Data based on the 2002 Economic Census. For information on confidentiality protection, nonsampling error, and explanation of terms, see note at end of table. For meaning of abbreviations and symbols, see introductory text]

Industry or product class code	Industry or primary product class	All establishments ¹	All employees		Production workers			Value added (\$1,000)	Total cost of materials (\$1,000)	Total value of shipments (\$1,000)	Total capital expenditures (\$1,000)
			Number ²	Payroll (\$1,000)	Number ²	Hours (1,000)	Wages (\$1,000)				
336411	Aircraft manufacturing	219	174 669	9 785 988	79 190	161 405	3 812 407	28 740 614	34 768 209	64 355 168	'912 669
3364112	Military aircraft (including all aircraft for U.S. military and any other aircraft built to military specifications)	22	74 546	4 489 885	31 587	58 731	1 318 396	8 588 092	11 687 429	19 677 382	'461 208
3364113	Civilian aircraft	35	76 578	3 925 232	35 256	75 667	1 841 150	16 965 122	20 308 442	38 681 664	'290 155
3364115	Modification, conversion, and overhaul of previously accepted aircraft	41	14 505	813 536	7 651	16 548	388 367	1 829 554	1 767 941	3 665 578	D
3364117	All other aeronautical services on complete aircraft	12	6 958	454 510	3 597	8 227	216 774	1 080 132	699 098	1 743 866	D

¹Includes establishments with payroll at any time during the year.

²Number of employees figures represent average number of production workers for pay period that includes the 12th of March, May, August, and November plus other employees for payroll period that includes the 12th of March.

Note: The data in this table are based on the 2002 Economic Census. To maintain confidentiality, the Census Bureau suppresses data to protect the identity of any business or individual. The census results in this table contain nonsampling errors. Data users who create their own estimates using data from American FactFinder tables should cite the Census Bureau as the source of the original data only. For explanation of terms, see Appendix A. For full technical documentation, see Appendix C.

Table 6a. Products Statistics: 2002 and 1997

[Includes quantity and value of products of this industry produced by (1) establishments classified in this industry (primary) and (2) establishments classified in other industries (secondary). Transfers of products of this industry from one establishment of a company to another establishment of the same company (interplant transfers) are also included. Data based on the 2002 Economic Census. For information on confidentiality protection, nonsampling error, and explanation of terms, see note 2 at end of table. For meaning of abbreviations and symbols, see introductory text]

Product code	Product	Number of companies with shipments of \$100,000 or more	Quantity of production for all purposes	Product shipments	
				Quantity	Value (\$1,000)
336411	Aircraft manufacturing	2002.. N 1997.. N	X X	X X	59 778 223 51 484 454
3364112	Military aircraft (including all aircraft for U.S. military and any other aircraft built to military specifications)	2002.. N 1997.. N	X X	X X	14 468 042 N
33641121	Military aircraft (including all aircraft for U.S. military and any other aircraft built to military specifications)	2002.. N 1997.. N	X X	X X	14 468 042 N
3364112100	Military aircraft (including all aircraft for U.S. military and any other aircraft built to military specifications)	2002.. 19 1997.. N	X X	X X	14 468 042 N
3364113	Civilian aircraft	2002.. N 1997.. N	X X	X X	35 266 995 30 690 008
33641131	Civilian aircraft	2002.. N 1997.. N	X X	X X	35 266 995 30 690 008
3364113100	Civilian aircraft ¹	2002.. 35 1997.. 36	X X	X X	35 266 995 30 690 008
3364115	Modification, conversion, and overhaul of previously accepted aircraft	2002.. N 1997.. N	X X	X X	6 203 313 5 084 547
33641151	Modification, conversion, and overhaul of previously accepted aircraft	2002.. N 1997.. N	X X	X X	5 768 669 5 034 734
3364115101	Modification, conversion, and overhaul of military aircraft and all other aircraft built to military specifications	2002.. 15 1997.. 15	X X	X X	3 448 619 3 683 926
3364115104	Modification, conversion, and overhaul of previously accepted aircraft for civilian customers	2002.. 44 1997.. 39	X X	X X	2 320 050 1 350 808
3364115Y	Modification, conversion, and overhaul of previously accepted aircraft, nsk	2002.. N 1997.. N	X X	X X	434 644 49 813
3364115YWV	Modification, conversion, and overhaul of previously accepted aircraft, nsk	2002.. N 1997.. N	X X	X X	434 644 49 813
3364117	All other aeronautical services on complete aircraft	2002.. N 1997.. N	X X	X X	3 770 780 3 413 659
33641171	All other aeronautical services on complete aircraft	2002.. N 1997.. N	X X	X X	3 675 888 3 393 069
3364117101	Research and development on complete aircraft for military customers	2002.. 7 1997.. 5	X X	X X	1 842 795 675 582
3364117104	All other aeronautical services on complete aircraft for military customers	2002.. 5 1997.. 12	X X	X X	734 465 1 205 119
3364117107	Research and development on complete aircraft for civilian customers	2002.. 4 1997.. 5	X X	X X	D D
3364117111	All other aeronautical services on complete aircraft for civilian customers	2002.. 16 1997.. 17	X X	X X	D D
3364117Y	All other aeronautical services on complete aircraft, nsk	2002.. N 1997.. N	X X	X X	94 892 20 590
3364117YWV	All other aeronautical services on complete aircraft, nsk	2002.. N 1997.. N	X X	X X	94 892 20 590
336411W	Aircraft manufacturing, nsk, total	2002.. N 1997.. N	X X	X X	69 093 396 769
336411WY	Aircraft manufacturing, nsk, total	2002.. N 1997.. N	X X	X X	69 093 396 769
336411WYWW	Aircraft manufacturing, nsk, for nonadministrative-record establishments	2002.. N 1997.. N	X X	X X	64 071 396 769
336411WYWY	Aircraft manufacturing, nsk, for administrative-record establishments	2002.. N 1997.. N	X X	X X	5 022 —

¹For additional detail, see Current Industrial Report M336G, Civil Aircraft and Aircraft Engines.

Note 1: For some establishments, data have been estimated from central unit values that are based on quantity-value relationships of reported data. The following symbols are used when percentage of each quantity figure estimated in this manner equals or exceeds 10 percent of published figure: p—10 to 19 percent estimated; q—20 to 29 percent estimated. If 30 percent or more is estimated, figure is replaced by S.

Note 2: The data in this table are based on the 2002 Economic Census. To maintain confidentiality, the Census Bureau suppresses data to protect the identity of any business or individual. The census results in this table contain nonsampling errors. Data users who create their own estimates using data from American FactFinder tables should cite the Census Bureau as the source of the original data only. For explanation of terms, see Appendix A. For full technical documentation, see Appendix C.

Table 6b. Product Class Shipments for Selected States: 2002 and 1997

[Product classes covered are those that are economically significant and whose production is geographically dispersed, provided dispersion is not approximated by data in Table 2. Also, product classes are not shown if they are miscellaneous or "not specified by kind" classes. Statistics for some states are withheld because they are either less than \$2 million in product class shipments or they disclose data for individual companies in 2002. Data based on the 2002 Economic Census. For information on confidentiality protection, nonsampling error, explanation of terms, and geographic definitions, see note at end of table. For information on geographic areas followed by *, see Appendix D. For meaning of abbreviations and symbols, see introductory text]

NAICS product class code	Product class and geographic area	Value of product shipments (\$1,000)
3364112	Military aircraft (including all aircraft for U.S. military and any other aircraft built to military specifications)	
	United States 2002 ..	14 468 042
	..... 1997 ..	N
	California 2002 ..	3 130 007
	..... 1997 ..	N
3364113	Civilian aircraft	
	United States 2002 ..	35 266 995
	..... 1997 ..	30 690 008
	California 2002 ..	254 270
	..... 1997 ..	N
	Kansas 2002 ..	4 517 536
	..... 1997 ..	3 015 425
	Texas 2002 ..	647 475
	..... 1997 ..	162 153
3364115	Modification, conversion, and overhaul of previously accepted aircraft	
	United States 2002 ..	6 203 313
	..... 1997 ..	5 084 547
	California 2002 ..	1 421 591
	..... 1997 ..	N
	Kansas 2002 ..	868 403
	..... 1997 ..	N
	Texas 2002 ..	68 296
	..... 1997 ..	1 272 507
3364117	All other aeronautical services on complete aircraft	
	United States 2002 ..	3 770 780
	..... 1997 ..	3 413 659
	California 2002 ..	109 625
	..... 1997 ..	454 698
	Kansas 2002 ..	335 714
	..... 1997 ..	N
	Texas 2002 ..	1 889 943
	..... 1997 ..	684 666

Note: The data in this table are based on the 2002 Economic Census. To maintain confidentiality, the Census Bureau suppresses data to protect the identity of any business or individual. The census results in this table contain nonsampling errors. Data users who create their own estimates using data from American FactFinder tables should cite the Census Bureau as the source of the original data only. For explanation of terms, see Appendix A. For full technical documentation, see Appendix C. For geographical definitions, see Appendix D.

Table 7. Materials Consumed by Kind: 2002 and 1997

[Includes quantity and cost of materials consumed or put into production by establishments classified only in this industry. Data based on the 2002 Economic Census. For information on confidentiality protection, nonsampling error, and explanation of terms, see note 2 at end of table. For meaning of abbreviations and symbols, see introductory text]

Material code	Material consumed	Quantity	Delivered cost (\$1,000)
336411	Aircraft manufacturing		
00900001	Total materials .....2002..	X	32 659 425
	.....1997..	X	34 268 528
33641201	Aircraft engines .....2002..	X	6 760 832
	.....1997..	X	D
33641203	Aircraft engine parts (excluding instruments) .....2002..	X	708 060
	.....1997..	X	73 075
33641303	Structural fuselage components (excluding instruments) .....2002..	X	D
	.....1997..	X	D
33641305	Structural empennage (tail) components (excluding instruments) .....2002..	X	D
	.....1997..	X	D
33641307	Structural wing components (excluding instruments) .....2002..	X	D
	.....1997..	X	D
33641309	Structural landing gear components .....2002..	X	D
	.....1997..	X	D
33641311	Other structural components (airframe), including engine mounts (excluding instruments) .....2002..	X	D
	.....1997..	X	794 688
33641301	Aircraft propellers and parts .....2002..	X	8 880
	.....1997..	X	37 804
33636005	Aircraft seats .....2002..	X	79 048
	.....1997..	X	12 904
33422003	Radio communication systems and equipment, including airborne transmitters and receivers (microwave, UHF, VHF, etc.) .....2002..	X	600 308
	.....1997..	X	D
33451103	Navigational systems and equipment (NAVAIDS) .....2002..	X	250 637
	.....1997..	X	138 054
001900D5	Search, detection, tracking, and electronic communication systems and equipment (RADAR, SONAR, and optical) .....2002..	X	D
	.....1997..	X	D
33400025	Flight, navigational, airframe, and engine indicators, instruments, and clusters (including sensors, displays, etc.) .....2002..	X	666 038
	.....1997..	X	D
001900B7	Resistors, capacitors, transformers, electron tubes, semiconductors, and other electronic components .....2002..	X	935 933
	.....1997..	X	119 075
00190070	Resin matrix composites .....2002..	X	100 803
	.....1997..	X	34 070
00190071	Other matrix composites (including ceramic, carbon, metal, etc.) .....2002..	X	59 604
	.....1997..	X	145 086
33291209	Complete mechanical, hydraulic and pneumatic subassemblies .....2002..	X	D
	.....1997..	X	D
33399601	Fluid power pumps, motors, and hydrostatic transmissions (hydraulic and pneumatic) .....2002..	X	D
	.....1997..	X	D
33291201	Fluid power valves (excluding complete assemblies) .....2002..	X	98 873
	.....1997..	X	D
33291203	Fluid power hose and tube fittings and assemblies (hydraulic and pneumatic) .....2002..	X	89 371
	.....1997..	X	D
33399503	Fluid power cylinders and rotary actuators (excluding complete assemblies) .....2002..	X	D
	.....1997..	X	D
33399901	Fluid power filters (hydraulic and pneumatic) .....2002..	X	D
	.....1997..	X	D
00190087	Other transportation related fluid power products, hydraulic and pneumatic .....2002..	X	D
	.....1997..	X	N
33299101	Ball and roller bearings (mounted or unmounted) .....2002..	X	59 996
	.....1997..	X	52 924
33351503	Cutting tools for machine tools .....2002..	X	D
	.....1997..	X	D
33251015	Aircraft metal hardware (excluding forgings) .....2002..	X	D
	.....1997..	X	D
33272203	Metal bolts, nuts, screws, washers, rivets, and other screw machine products .....2002..	X	124 886
	.....1997..	X	D
33200009	Other fabricated metal products (excluding fluid power, forgings, aircraft metal hardware and bolts, nuts, screws, washers, rivets, and other screw machine products) .....2002..	X	166 129
	.....1997..	X	168 799
33211101	Iron and steel forgings .....2002..	X	6 448
	.....1997..	X	8 313
33211203	Aluminum and aluminum-base alloy forgings .....2002..	X	15 905
	.....1997..	X	8 469
33211205	Titanium and titanium-base alloy forgings .....2002..	X	D
	.....1997..	X	D
33210003	Other forgings .....2002..	X	D
	.....1997..	X	26 808
33151001	Iron and steel castings (rough and semifinished) .....2002..	X	4 654
	.....1997..	X	D
33152005	Aluminum and aluminum-base alloy castings (rough and semifinished) .....2002..	X	30 203
	.....1997..	X	4 219
33152003	Other nonferrous metal castings, rough and semifinished (including aluminum and aluminum-base alloy) .....2002..	X	D
	.....1997..	X	D
33120007	Steel bars, bar shapes, and plate (excluding castings, forgings, and fabricated metal products) .....2002..	X	D
	.....1997..	X	13 846
33120016	Steel sheet and strip (including tinplate) .....2002..	X	D
	.....1997..	X	N
33120033	All other steel shapes and forms (excluding castings, forgings, and fabricated metal products) .....2002..	X	D
	.....1997..	X	D
33131500	Aluminum and aluminum-base alloy sheet, plate, foil, and welded tubing .....2002..	X	59 886
	.....1997..	X	N
33100055	All other aluminum and aluminum-base alloy shapes and forms (excluding castings, forgings, and fabricated metal products) .....2002..	X	D
	.....1997..	X	D
33142111	Copper and copper-base alloy shapes and forms (excluding castings, forgings, and fabricated metal products) .....2002..	X	D
	.....1997..	X	D

See footnotes at end of table.

Table 7. Materials Consumed by Kind: 2002 and 1997—Con.

[Includes quantity and cost of materials consumed or put into production by establishments classified only in this industry. Data based on the 2002 Economic Census. For information on confidentiality protection, nonsampling error, and explanation of terms, see note 2 at end of table. For meaning of abbreviations and symbols, see introductory text]

Material code	Material consumed	Quantity	Delivered cost (\$1,000)
336411	Aircraft manufacturing—Con.		
33149100	Titanium and titanium-base alloy shapes and forms (excluding castings, forgings, and fabricated metal products) .....2002..	X	D
	.....1997..	X	N
33100065	Other nonferrous shapes and forms (excluding aluminum and aluminum-base alloy, copper and copper-base alloy, and titanium and titanium-base alloy castings, forgings, and fabricated metal products) .....2002..	X	D
	.....1997..	X	D
32551002	Paints, varnishes, stains, lacquers, shellacs, japans, enamels, and allied product .....2002..	X	33 924
	.....1997..	X	N
00970099	All other materials and components, parts, containers, and supplies .....2002..	X	2 914 255
	.....1997..	X	5 606 470
00971000	Materials, ingredients, containers, and supplies, nsk .....2002..	X	8 941 950
	.....1997..	X	7 342 173

Note 1: For some establishments, data have been estimated from central unit values that are based on quantity-value relationships of reported data. The following symbols are used when percentage of each quantity figure estimated in this manner equals or exceeds 10 percent of published figure: p—10 to 19 percent estimated; q—20 to 29 percent estimated. If 30 percent or more is estimated, figure is replaced by S.

Note 2: The data in this table are based on the 2002 Economic Census. To maintain confidentiality, the Census Bureau suppresses data to protect the identity of any business or individual. The census results in this table contain nonsampling errors. Data users who create their own estimates using data from American FactFinder tables should cite the Census Bureau as the source of the original data only. For explanation of terms, see Appendix A. For full technical documentation, see Appendix C.